

National Security and
International Affairs Division

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ARMY DEPOT MAINTENANCE:
Privatization without Further
Downsizing Increases Costly
Excess Capacity

September 18, 1996

The Honorable Floyd Spence
Chairman
The Honorable Ronald Dellums
Ranking Minority Member
Committee on National Security
House of RepresentativesThe Honorable Glen Browder
House of Representatives

In response to your requests, we reviewed the Army's plans to reallocate depot maintenance workloads from depots recommended for closure or realignment by the 1995 Defense Base Closure and Realignment (BRAC) Commission. Specifically, we reviewed the Army's plans to consolidate workloads at remaining Department of Defense (DOD) depots and emerging plans to privatize workloads in place or at other private sector facilities to determine the (1) impact on excess depot capacity and operating costs at the remaining defense depots, (2) cost-effectiveness of planned privatization options, and (3) compliance with statutory requirements.

Background

The Army spends about \$1.3 billion annually on depot maintenance work that includes the repair, overhaul, modification, and upgrading of aircraft, tracked and wheeled combat vehicles, and electronic items. It also includes limited manufacture of parts, technical support, testing, and software maintenance. This work generally requires extensive shop facilities, specialized equipment, and skilled technical and engineering personnel. Depot maintenance work is generally performed by government employees in government-owned and operated depots and by private sector employees in government-owned or contractor-owned facilities.

During World War II, at a time when the Army was purchasing massive quantities of new, modernized, and more sophisticated weapon systems, an emerging requirement for depot level support was met largely by the creation of government-owned and operated depots. This capability was expanded to meet the demands of Cold War contingency requirements and to provide peacetime depot-level support for an expanded array of Army systems and equipment. By 1976, 10 Army depots performed maintenance

work in the continental United States and 2 in Europe. Since the mid-1970s, our agency and others have reported on the redundancies and excess capacity that existed in DOD's depot maintenance operations and facilities, including those owned by the Army. (A list of related GAO reports and testimonies is attached.) In recent years, major force structure reductions following the end of the Cold War have substantially reduced depot maintenance requirements and increased the amount of costly excess capacity.

Results of Prior BRAC Processes

The problem of excess capacity, for the most part, has been addressed through the BRAC process. Prior to the process, some downsizing of the Army depot system was achieved through the closure of the Sharpe, California, and Pueblo, Colorado, maintenance depots. During the first three BRAC rounds in 1988, 1991, and 1993, the process determined that three of the Army's eight remaining maintenance depots should be closed. Consequently, maintenance work ceased at depots located in Lexington, Kentucky, Sacramento, California, and Tooele, Utah, with most workloads from the closing depots transferred to other DOD depots.

1995 BRAC Process Decisions

The February 28, 1995, report from the Secretary of Defense to the Chairman of the BRAC Commission recommended realignment of the Red River and Letterkenny depot-level maintenance missions. The report recommended that the Red River and Letterkenny ground combat vehicle maintenance missions be transferred to the Anniston depot. It also recommended changing the 1993 BRAC Commission recommendation to consolidate tactical missile maintenance at Letterkenny by transferring the missile guidance system maintenance workload to the Tobyhanna depot.

The BRAC Commission recommended that the Red River depot be downsized rather than closed. Citing concern that complete closure of the Red River depot would adversely affect ground combat vehicle readiness and sustainability, the Commission concluded that capability for the depot-level maintenance of ground combat vehicles should be maintained at more than one Army depot. The Commission recommended that all maintenance work pertaining to the Bradley family of vehicles be retained at the Red River depot and that other workloads be transferred to other depot maintenance activities, including the private sector. The Commission agreed with the Secretary of Defense's recommendation to realign depot-level maintenance at the Letterkenny depot to other depots or the private sector. It recommended the (1) transfer of towed and

self-propelled combat vehicle maintenance workloads to the Anniston depot and missile guidance system maintenance workload to the Tobyhanna depot or the private sector and (2) retention of an enclave for conventional ammunition storage and tactical missile disassembly and storage at Letterkenny. Table 1 identifies the five remaining Army depot-level maintenance activities, provides a general description of each depot's workload, and highlights the potential affect of the implementation of BRAC decisions.

Table 1: Army's Depot Maintenance Facilities

Depot	Workload description	Potential effect from BRAC 1995
Anniston, Alabama	Heavy tracked combat vehicles and small arms	Receive combat vehicle workload from Letterkenny and Red River Army Depots.
Corpus Christi, Texas	Rotary wing aircraft and associated equipment	No affect.
Letterkenny, Pennsylvania	Towed and self-propelled artillery; tactical missile systems	Realign depot maintenance, tactical missile guidance system workload to Tobyhanna Army Depot or to private sector, combat vehicle workload to Anniston Army Depot. Enclave ammunition storage and tactical missile disassembly and storage.
Red River, Texas	Light to medium combat vehicles; wheeled tactical vehicles and troop support equipment	Downsize maintenance operations; retain Bradley family of vehicles, including multiple launch rocket system; and transfer remaining workload to Anniston Army Depot or private sector.
Tobyhanna, Pennsylvania	Communications and electronics systems	Receive ground communications/electronics from Sacramento Air Logistics Center and missile guidance system workload from Letterkenny Army Depot.

Implementing the BRAC Decisions

In developing its March 1996 report to Congress entitled Depot-Level Maintenance and Repair Workload, the Army reported that it would privatize workloads assigned to depots being realigned. This included privatizing, either in-place or at existing contractor locations, the

maintenance of various trucks, semitrailers, and troop support equipment maintained by government employees assigned to the Red River depot. Most of this work was received from the Tooele depot, which the Commission recommended for closure in 1993. The March 1996 workload report also included consolidating tactical missile maintenance workload and maintenance requirements for the Paladin light artillery combat vehicle to government-owned, contractor-operated (GOCO) facilities to be located on the existing Letterkenny installation. Army officials stated that these plans have not yet been finalized and are dependent on the repeal of the 60/40 provision in 10 U.S.C.2466, which limits the amount of depot maintenance funds that can be used for private-sector performance.

The Army Materiel Command is responsible for planning, managing, and implementing the BRAC Commission's closure and realignment recommendations. The Army Industrial Operations Command, a subordinate activity under the Materiel Command, provides management support and oversight of Army depot operations. In July 1995, the Army developed preliminary implementation plans regarding the distribution of workload from depots affected by the 1995 BRAC. However, as of August 5, 1996, these plans had not been finalized. Our review is based on the Army's plans as described to us as of that date.

Results in Brief

As we stated in our April 1996 testimony on depot maintenance before the Readiness Subcommittees of the House Committee on National Security and the Senate Committee on Armed Services, deciding the future of the DOD depot system is difficult. Depot maintenance privatization should be approached carefully, allowing for evaluation of economic, readiness, and statutory requirements that surround individual workloads. Privatizing depot maintenance activities, if not effectively managed, including the downsizing of remaining DOD depot infrastructure, could exacerbate existing capacity problems and the inefficiencies inherent in underuse of depot maintenance capacity. Privatization-in-place does not appear to be cost-effective given the excess capacity in DOD's depot maintenance system and the private sector.¹

Tentative plans to transfer some workloads from realigned depots to remaining depots should improve capacity use and lower operating costs to some extent, but they will not resolve the Army's extensive excess depot capacity problems. Since the Army is not effectively downsizing its

¹Defense Depot Maintenance: Privatization and the Debate Over the Public-Private Mix (GAO/T-NSIAD-96-146, Apr. 16, 1996) and (GAO/T-NSIAD-96-148, Apr. 17, 1996).

remaining depot maintenance infrastructure, privatization initiatives outlined in DOD's March 1996 workload analysis report to Congress will increase excess capacity in Army depots from 42 percent to 46 percent and increase Army depot maintenance costs. Privatizing-in-place will also aggravate excess capacity conditions in the private sector. It is not clear how the Army intends to comply with statutory requirements such as 10 U.S.C. 2469, which requires the use of competitive procedures before privatizing depot maintenance workloads valued at not less than \$3 million.

The Army's plans for reallocating depot workloads are still evolving. The Army has not demonstrated that depot privatization initiatives relating to the 1995 depot closure and realignment decisions are cost-effective. The Army's use of a privatization savings assumption of 20 percent is not supported. In the absence of further downsizing, opportunities exist to significantly reduce Army depot maintenance costs by transferring, rather than privatizing-in-place, workloads from closing and downsizing depots. Workload transfers will improve utilization and decrease costs of operations at remaining facilities. Specifically, our work shows the following:

- Expediting the transfer of ground communications and electronic equipment from the Sacramento Air Logistics Center to the Tobyhanna Army Depot could reduce the Tobyhanna depot's operating costs by as much as \$6 per hour, resulting in annual savings of up to \$24 million. Expediting the transfer would also generate additional savings for the Air Force by the termination of this work at the Sacramento depot earlier than currently scheduled in 2001.
- The Army's current plans will not likely achieve the BRAC 1995 Commission's projected 20-year net present value savings of (1) \$953 million from realigning the Letterkenny depot or (2) \$274 million from downsizing the Red River depot.
- Consolidating the tactical missile workload at the Tobyhanna depot could significantly improve the utilization at that depot and decrease costs by as much as \$27 million annually.
- Privatizing noncore vehicle and troop support equipment currently maintained at the Red River depot forgoes the opportunity to consolidate this workload with similar work at another Army facility and to improve the utilization and the cost-effectiveness of depot maintenance at the receiving facility.

Several statutes may affect the privatization of depot maintenance workloads. A key provision is 10 U.S.C. 2469. While the Army's plans for privatizing work at the Letterkenny and Red River depots are still tentative, we have not been able to identify any element in the plans that addresses the 10 U.S.C. 2469 requirement.

Substantial Excess Capacity Will Remain Based on Tentative Plans to Implement the BRAC Recommendations

The Army continues to have substantial excess capacity within its depot maintenance system. Although still evolving, Army plans for allocating some workloads from realigned depots to remaining depots will likely achieve some excess capacity reduction and savings at two activities. However, in the context of the Army's overall depot maintenance operations, there are opportunities for achieving greater efficiencies and cost-effectiveness. In particular, tentative plans to privatize-in-place certain workloads would result in an estimated 4-percent increase in excess capacity over the next 3 years. Consequently, these plans do not appear to be cost-effective. By consolidating these workloads with similar work at remaining Army depots, the fixed overhead costs would be spread over a larger number of items, decreasing the per unit costs of depot-maintenance workloads. Additionally, since private-sector contractors also have significant excess capacity in existing manufacturing and repair facilities, privatization-in-place at either the Letterkenny or Red River depot would also aggravate excess capacity conditions in the private sector. Further, it is questionable that major excess capacity reductions will be achieved from public-private sector joint ventures at this time.

Plans for Allocating Some Workloads to Remaining Depots Should Reduce Some Excess Capacity and Achieve Limited Operational Economies

Tentatively planned workload transfers from implementing BRAC Commission recommendations should result in some increase in capacity utilization and reduction in costs at two of the remaining Army depots—if the planned work materializes and the gains are not offset by future workload reductions in other areas. The Anniston depot is scheduled to receive combat vehicle workloads from the Letterkenny and Red River depots between 1996 and 1999. Additionally, the Tobyhanna depot is expected to receive the common-use ground communication and electronics workload from a closing Air Force depot at McClellan Air Force Base in Sacramento, California. However, based on presidential direction, this transition has been delayed until the year 2001²—an action

²To reduce the economic impact at McClellan and Kelly and the surrounding communities, the President directed the Secretary of Defense to space out the privatization over a 5-year period. As a result, about 8,700 jobs at McClellan and 16,000 jobs at Kelly will be retained through the end of this period.

that will increase transition costs and decrease anticipated savings from the planned workload realignment.

Planned Workload Transfer to Anniston Army Depot Should Reduce Excess Capacity

The Army tentatively plans to transfer about 1.2 million direct labor hours of workload to Anniston from two realigned maintenance depots. A workload transfer of this magnitude—if funded at this level, with no further reductions in the Anniston depot's remaining workload—would increase Anniston's overall capacity utilization in fiscal year 1999 from 40 percent to 66 percent. By improving the facility utilization and spreading the fixed overhead over a larger volume of workload, Anniston's hourly operating costs could be reduced by about \$14 (from about \$98 to \$84). Anniston officials estimated that the one-time cost to transfer these workloads is \$23.4 million. The transition costs include expenditures for relocating equipment from the realigned depots, purchasing new equipment, improving facilities, and related personnel actions. The size of the workload being transferred could represent up to about 680 staff years. However, because Anniston's current workload is declining and the skills required to perform the transferring work are similar to those required for the current work, Army officials told us the receiving depot can absorb the new workload without an increase in personnel.

The 1995 BRAC Commission recommended that the Red River depot be downsized by transferring all non-Bradley vehicle workloads to other depot maintenance activities, including the private sector. The Army tentatively plans to transfer all non-Bradley related core workloads to the Anniston depot. This workload includes about 719,000 direct labor hours of fiscal year 1999 programmed work for M113 armored personnel carriers and M9 armored combat earthmovers. Anniston depot officials plan to begin receiving the new workloads during fiscal year 1997 and plan to be in full production by fiscal year 1999.

The 1995 BRAC Commission also recommended the transfer of all self-propelled and towed artillery maintenance work from Letterkenny to Anniston. To comply, the Army tentatively plans to transfer about 460,000 direct labor hours of fiscal year 1999 programmed workload. The Anniston depot officials plan to initiate training in August 1996 to facilitate the orderly transition of the Letterkenny workload. According to Anniston depot officials, industrial equipment will be moved and some new equipment will be procured during the first and second quarters of fiscal 1997.

Planned Workload Allocation to Tobyhanna Army Depot Would Reduce Excess Capacity but Has Been Delayed

In formulating its 1995 recommendation to close McClellan Air Force Base, the BRAC Commission recommended the transfer of the common-use ground communication-electronics workload to the Tobyhanna Army Depot. This workload, which includes items such as radar, radio communications, electronic warfare, navigational aids, electro-optic and night vision devices, satellite sensors, and cryptographic security equipment, is currently estimated to be 1.2 million direct labor hours annually. A workload transfer of this magnitude, if funded at this level, would increase Tobyhanna's capacity utilization from 49 percent to 65 percent, reduce the labor rate by \$6 (from \$64 to \$58), and produce an annualized savings of about \$24 million. However, the Air Force is delaying transfer of this work until the year 2001 in response to the President's direction that 8,700 jobs be retained at McClellan until the year 2001 to minimize the economic impact on the local community.

According to Army officials, delaying all of the workload transfers until the year 2001 could require the Tobyhanna depot to undergo a reduction-in-force, followed by a costly rehiring and retraining situation when the Air Force workloads are eventually transferred. As a result of a declining workload, Tobyhanna is downsizing its personnel during 1996 with a voluntary separation of about 250 personnel. Army officials said that an involuntary separation of about 800 personnel may also be required in fiscal year 1997 or 1998 if no additional workloads are transferred to Tobyhanna. This reduction would include the loss of personnel having critical skills and competencies needed to perform the ground communications workload.

Army Privatization Plans Without Further Downsizing May Not Be Cost-Effective

The Army maintains that its tentative privatization plans will be more cost-effective than transferring workloads to one of the remaining DOD depots. However, cost-benefit analyses are incomplete and are based on unsupported savings assumptions. Furthermore, plans to privatize workloads at facilities that the BRAC Commission recommended for realignment will not achieve the BRAC objective of reducing costly excess capacity. The Army is not likely to achieve (1) the \$953-million savings the BRAC Commission projected from realigning the Letterkenny depot if it privatizes-in-place the tactical missile and Paladin workloads or leaves a substantial government tactical missile maintenance workload ongoing at Letterkenny or (2) the \$274-million savings the Commission projected from downsizing operations at the Red River depot and transferring work to other DOD depots.³ Also, for readiness reasons, the Red River depot is

³The projected savings are net present value for a 20-year period, 1996 to 2015.

Excess Depot Capacity Will Remain in Army Depot System

being retained, despite significant excess capacity and rising operation costs.

Despite movement of some workloads to remaining Army depots, implementation of the BRAC Commission's recommendations, as reflected in DOD's report to Congress, will likely result in excess capacity at the four remaining government-owned and operated depots, increasing from 42 percent to 46 percent.⁴ This increase is caused by a number of factors, including (1) a forecasted decrease in future year depot-level maintenance workload; (2) the Army's tentative decision to establish a GOCO facility at Letterkenny for tactical missile and Paladin combat vehicle work rather than transfer the work to another DOD depot; (3) the BRAC recommendation, for readiness reasons, to downsize, rather than close, the Red River depot; and (4) the Defense Depot Maintenance Council's decision supporting the Air Force's plan to delay transfer of the ground communications-electronics workload from the Sacramento Air Logistics Center to the Tobyhanna Army Depot until the year 2001.

Table 2 shows maximum potential capacity and current excess capacity for the Army's five depots based on programmed fiscal year 1996 workload.⁵ This table does not reflect the Army's tentative workload transfer and privatization plans.

⁴We determined the current excess capacity percentage based on a comparison of maximum potential capacity and workload forecasts for fiscal year 1996. To assess the impact of planned workload reallocations, we compared maximum potential capacity to workload forecasts for fiscal year 1999, adjusting for (1) capacity that the Army plans to transfer to the Red River and Letterkenny depot communities, (2) planned reallocation of programmed workloads from the Letterkenny and Red River depots to the Anniston depot, and (3) planned privatization of Letterkenny and Red River workloads.

⁵Capacity and workload statistics are described in direct labor hours, with 1,615 direct labor hours representing one staff year of work. Excess capacity rates are developed by comparing maximum potential capacity and programmed workload, assuming a 5-day workweek, one 8-hour-per-day shift operation. Maximum potential capacity is an assessment of the maximum number of direct labor hours that a depot can produce on a one-shift per-day operation, given existing equipment and facilities and no manpower constraints.

Table 2: Excess Capacity in Fiscal Year 1996 for Five Army Maintenance Depots

Depot	Maximum potential capacity (million direct labor hours)	Programmed FY96 workload (million direct labor hours)	Percentage excess capacity
Anniston	4,512	2,976	34
Corpus Christi	4,714	3,507	26
Letterkenny	3,418	2,461	28
Red River	4,684	1,964	58
Tobyhanna	7,606	3,597	53
Armywide	24,934	14,505	42

The BRAC Commission's recommendation to realign the Letterkenny depot and downsize the Red River depot was based on anticipated savings from eliminating costly excess capacity, reducing base operation costs, and reducing personnel by consolidating similar workloads at other underutilized depots. While potential privatization initiatives could reduce the total number of personnel currently required to perform various workloads, they are not likely to achieve the \$1.227 billion (\$953 million at Letterkenny and \$274 million at Red River) savings that the BRAC Commission projected could be achieved by implementing BRAC recommendations at Letterkenny and Red River.

Excess Capacity in the Private Sector

Recent changes in force structure and military strategies have created significant excess capacities in private manufacturing and repair facilities, as well as in military depots. Industry representatives state that the private sector has been reducing its excess capacity through mergers, closures, and consolidations, but DOD has not made comparable reductions in the military depot infrastructure. A recent Defense Science Board Study concluded that privatization-in-place should be avoided because this approach to downsizing results in the preservation of surplus capacity.

Privatization Savings Assumption Not Supported

The Army's privatization plans include an unsupported assumption that private-sector firms will perform the work for 20 percent less than an Army depot. Army officials told us the 20-percent savings assumption is based on statements in the May 1995 Commission on Roles and Missions' report entitled Directions for Defense. We have reported that privatization savings reported by the Commission do not apply to depot maintenance because of limited or no private-sector competition and the existence of excess public depot capacity that increases the cost of performing depot maintenance work in remaining DOD depot facilities.⁶ For example, the

⁶Defense Depot Maintenance: Commission on Roles and Mission's Privatization Assumptions Are Questionable (GAO/NSIAD-96-161, July 15, 1996).

Commission's privatization savings estimate was based on studies of public-private competitions under Office of Management and Budget Circular A-76. These competitions were generally for simple, routine, and repetitive tasks that required little capital investment, such as grounds maintenance, motor pool operations, and stocking shelves. In these competitions, which attracted a large number of private-sector offerors, public activities were also allowed to participate and won about half. Further, saving projections were based on estimates, and our work and defense audit reports have shown that projected savings for contracted services were often not achieved due to cost growth and other factors.

Establishing a GOCO at
Letterkenny for Tactical Missile
Work May Not Be
Cost-Effective

Consolidating the tactical missile workload at the Tobyhanna depot could significantly improve the utilization at that depot and decrease costs by as much as \$27 million annually. However, the Army plans to privatize-in-place tactical missile workloads at the Letterkenny depot without determining the cost-effectiveness of transferring all the work to the Tobyhanna depot and the potential for reducing excess capacity. Additionally, privatizing the missile workload, which has traditionally been defined as core, will require a risk assessment. The Army has not conducted a formal risk assessment.

To support its privatization plans, in January 1996, the Army Materiel Command requested its Industrial Operations Command to develop a cost-benefit analysis to support the proposed GOCO operation for tactical missiles at the Letterkenny Army Depot. The Operations Command was asked to analyze cost benefits for (1) transferring 14 percent of Letterkenny's missile workload to Tobyhanna with the remaining workload to be performed in a government-owned, government-operated depot at the current Letterkenny location; (2) transferring all of Letterkenny's tactical missile work to a government-owned, contractor-operated facility; and (3) establishing a government-owned, contractor-operated depot for 14 percent of Letterkenny's workload with the remaining work continuing to be performed in a government-owned and government-operated depot at the current Letterkenny location. The request did not ask for an assessment of the costs and benefits of transferring the complete missile maintenance workload package to Tobyhanna.

Army Materiel Command officials told us that they interpret the 1995 BRAC Commission recommendation to transfer missile guidance system workloads from Letterkenny to Tobyhanna to only include the work required on circuit cards installed in six Air Force and Navy missile

systems. This work represents less than 14 percent of the consolidated missile maintenance workload package at Letterkenny. Based on this interpretation, the Army could choose to retain 86 percent of DOD's consolidated missile maintenance workload at Letterkenny as a government-owned, government-operated facility.

Army Materiel Command officials told us that work on the requested cost-benefit analyses is in a "strategic pause" pending action by Congress to repeal or modify 10 U.S.C. 2466, which currently prohibits the use of more than 40 percent of the funds made available in a fiscal year for depot-level maintenance or repair for private-sector performance—the 60/40 provision. However, Materiel Command officials also told us they have no current plans to analyze options to transfer the total tactical missile workload package to the Tobyhanna depot. They stated that if the 60/40 provision is not repealed, the preferred option may be to establish a joint military-contractor partnership, with up to 86 percent of the tactical missile work retained under military ownership and operation while about 14 percent would be performed in the military-owned facility by contractor personnel.

Determining the most cost-effective alternative for performing the tactical missile workload would require an assessment of the costs and benefits that could be achieved from transferring the full tactical missile workload package to Tobyhanna. Our analysis shows that transfer of the complete missile maintenance workload package, estimated at about 1.5 million direct labor hours in fiscal year 1999, would reduce Tobyhanna's excess capacity from about 51 percent to about 31 percent. Further, by consolidating the tactical missile workload in this facility and spreading fixed overhead costs over a larger amount of work, the Tobyhanna depot's hourly operating costs could be reduced by about \$6, resulting in annualized savings of about \$27 million. The transfer of both the electronics workload from McClellan Air Force Base and the missile workload from Letterkenny would increase Tobyhanna's overall facility utilization to about 85 percent of maximum potential capacity—based on the standard 5-day week, single 8-hour per day shift—and result in projected annualized savings of about \$51 million. Additionally, the BRAC Commission identified 20-year savings of \$953 million from realigning the Letterkenny depot. These savings are not likely to be achieved if the Army privatizes-in-place at Letterkenny or continues to operate much of the missile workload as a government-owned and operated depot.

Continuing a GOCO Facility at Letterkenny for the Paladin Self-Propelled Artillery Vehicle Is Questionable

The cost-effectiveness of the Army's plan to continue a GOCO facility at the Letterkenny depot to support the Paladin self-propelled artillery vehicle until the year 2001 is questionable—particularly given that the capacity and capability to perform the work at the Anniston depot currently exist. Also, continuing work at the Letterkenny depot would require continued funding of fixed overhead costs at that facility.

The Letterkenny depot has an ongoing partnership arrangement with private industry to upgrade and modernize the Paladin. Government employees overhaul and refurbish M109 chassis and private-sector employees fabricate and install new gun mounts and turrets. System integration is accomplished by employees from both sectors. The current upgrade program is scheduled to be completed in fiscal year 1999. However, the Army tentatively plans to terminate government employee participation in the program in fiscal year 1997 by changing to 100 percent contractor employee support for the final 2 years of the program.⁷ An Army Materiel Command official informed us that the Army leadership met informally and determined that transferring capability for future Paladin maintenance requirements to the private sector using employees from the realigning Letterkenny depot would be less risky and costly than establishing capability at another DOD depot. A formal risk assessment of this workload transfer to the private sector has not been documented as required by DOD policy before privatizing core workloads.

Anniston Army depot officials stated that this depot already has repair capability for the M109 family of vehicles, which are similar to the Paladin. Prior workload data show that the depot currently overhauls or repairs eight to nine of these vehicles per year. Further, the Anniston depot would continue to operate with at least 25 percent excess capacity, even after the transfer of core workload expected to come from the Red River depot. The consolidation of Paladin workload would further improve the utilization of the Anniston facility. On the other hand, if the Paladin workload continues to be conducted at Letterkenny, it will require continued funding of fixed overhead at that facility, which otherwise would be eliminated, whether operated as a government facility or a contractor facility. A determination of the most cost-effective source of repair for future Paladin work would require an analysis of overhead costs at both potential repair locations.

⁷The planned Paladin privatization was reported to Congress in DOD's March 1996 depot maintenance workload report. Army officials stated that these are tentative plans and have not yet been finalized.

Plans to Privatize Tactical
Wheeled Vehicle and Troop
Support Equipment
Maintenance Workloads Are
Pending

The Army's tentative plans to privatize tactical wheeled vehicle and troop support equipment workloads currently assigned to the Red River depot are based on the assumption that 20 percent savings can be achieved through privatization, as concluded by the Commission on Roles and Missions. However, a comprehensive economic analysis to document the benefits the Army expects to achieve has not been completed. Various problems and unresolved issues have delayed privatization efforts. For example, the Army Materiel Command has not determined if these workloads will be privatized-in-place or awarded to contractors having the existing capability and capacity to perform work at other locations. Further, initial efforts by the Army to award repair contracts have been delayed because technical data and workload specifications lack the specificity to solicit offers from private-sector contractors.

The 1993 BRAC Commission recommended closure of maintenance facilities at the Tooele depot and transfer of workloads to other maintenance activities, including the private sector. In the Army's initial plan for terminating maintenance work at the Tooele depot, it planned to transfer all of its tactical wheeled and troop support equipment maintenance workloads to the Red River depot. However, in May 1994, the Army Materiel Command determined that because these workloads did not support core capabilities, they would be offered for privatization.⁸ Subsequently, the Army transferred the maintenance mission for these systems to the Red River depot for interim support, pending award of repair contracts to private-sector firms. However, privatization of these systems has been delayed because the Army lacked detailed technical data, including component tolerances and workload descriptions, that are required to conduct competitions. The 1995 BRAC Commission recommended that all Red River work other than the Bradley family of fighting vehicles should be moved to other depot maintenance activities, including the private sector. This recommendation did not discuss privatizing-in-place the workloads at Red River.

While the Army has reported to Congress that this workload will be privatized, a comprehensive cost analysis has not yet been completed. Army Materiel Command officials told us that a comprehensive

⁸DOD policy provides that core capability exists to minimize operational risks and to guarantee readiness and sustainability for weapon systems required to support the Joint Chiefs of Staff contingency scenarios. However, not all critical or mission-essential weapon systems and equipment will necessarily be maintained in military depot facilities, but the capability to perform depot maintenance on designated weapon systems must be maintained in DOD facilities. Thus, core represents the minimum amount of maintenance capability that the DOD components must maintain in organic depot facilities to ensure that contingency operations are not compromised because of a lack of essential depot maintenance support.

cost-benefit analysis supporting privatization plans for the workload previously assigned to Tooele was initiated in September 1995. Results of this analysis were to be validated by the Army Audit Agency. It is not clear whether these plans include privatizing-in-place the workloads at Red River or accomplishing the work at existing contractor facilities. The officials also said that their preliminary analysis assumes that private-sector contractors can accomplish the workloads for 20 to 30 percent less than the current costs of performing this work in Army depots. Recently, Command officials informed us that work on this analysis was suspended, pending action by Congress to repeal the 60/40 provision in 10 U.S.C. 2466 and 10 U.S.C. 2469, which requires competitive procedures that include the participation of public and private entities prior to privatizing depot maintenance workloads valued at not less than \$3 million.

Our analysis shows that, if the Army were to transfer, rather than privatize, wheeled vehicle and troop support equipment workloads, the work would absorb about 20 percent of Anniston's existing excess capacity. Anniston depot officials also told us they could support the additional workloads with their current workforce.

Red River Depot Capacity Retained for Readiness Reasons

DOD recommended closure of the Red River depot. However, the BRAC Commission recommended that the depot be downsized rather than closed. The BRAC Commission was concerned that complete closure of the depot would adversely affect ground combat vehicle readiness and sustainability and concluded that capability for the depot-level maintenance of ground combat vehicles should be maintained at more than one depot. The Commission recommended that all maintenance work pertaining to the Bradley family of vehicles be retained at the Red River depot and that other workloads be transferred to other depot maintenance activities, including the private sector. This decision will leave the Red River depot with about 86 percent excess capacity and substantially increased operating costs.

An Army Materiel Command analysis projected that costs for residual Bradley-related workloads will increase by about \$15 per hour because fixed overhead costs will be allocated to a much smaller workload base. To illustrate the impact, the Red River depot currently is authorized 2,400 civilian employees to produce about 2 million direct labor hours of maintenance output. Of this number, overhead personnel account for about 21 percent of the depot workforce. After downsizing operations, the depot will produce 529,000 direct labor hours with an authorization of

1,476 civilians. The number of overhead personnel remains essentially unchanged under the downsized mode of operations, but the percentage of overhead personnel to total employees increases to about 35 percent. Army officials stated they plan to consider options for reducing the number of overhead positions that will remain at the depot once it is downsized.

Major Excess Capacity Reductions Through Joint Public-Private Ventures Are Uncertain

In April 1996, we testified that privatizing DOD depot maintenance activities, if not effectively managed, including the downsizing of remaining depot infrastructure, will exacerbate existing excess capacity problems and the inefficiencies inherent in underuse of depot maintenance capacity. DOD officials have stated they plan joint public-private ventures to more efficiently use remaining DOD depot capabilities and reduce excess capacity. While these initiatives have some potential, it is doubtful whether they will significantly reduce excess capacity in the Army.

Traditionally, working relationships between public depots and the private sector are characterized either by a DOD depot providing equipment, facilities, and materials to a prime contractor for independent repair and modernization programs or by an original equipment manufacturer providing new parts to the depot for use in the repair of government-owned assets. The Army has initiatives underway and additional plans to use some of its excess depot infrastructure through joint ventures with private industry. For example, as of June 1996, the Anniston depot had 10 programs underway or completed and 5 more planned. These projects involve (1) sharing depot-level workload on major weapon systems, (2) providing depot resources to private business, and (3) allowing private-sector use of depot facilities. Depot representatives told us the partnering, subcontracting, and leasing of depot facilities serve as a vehicle to develop new working relationships with the private sector and to make better use of the resources and capabilities that each has to offer. For example:

- Anniston's largest shared work program is the M1/M1A2 tank upgrade program. Anniston depot employees disassemble the tank, prepare the hull for reassembly, and refurbish selected major assemblies such as the turbine engine and hull electronic components. General Dynamics Land Systems Division employees, located in Lima, Ohio, receive the components from Anniston, build the new turret structure, and assemble

the upgraded tank for delivery to combat units. While an example of a joint venture, this program has no affect on Anniston's excess capacity.

- A completed Anniston project provided depot resources to private industry for the fabrication of specialized mining equipment. Under a direct sales agreement for this nonmilitary project, the depot was a subcontractor to United Defense Limited Partnership Steel Products Division and was responsible for the manufacture of certain parts needed for specialized mining equipment used by a mid-western power company. The Anniston work included welding, machining, assembling, and painting of conventional face conveyor pan sections for the specialized mining equipment.
- In a planned project, Anniston employees will provide cleaning, welding, machining, asbestos removal, and painting support to General Dynamics Land Systems Division in a joint venture to upgrade FOX Nuclear, Biological and Chemical Reconnaissance vehicles. In accomplishing this project, contractor and depot personnel will use 28,000 square feet of underutilized depot infrastructure.

It is too early to fully assess the potential impact of these and similar initiatives. Army officials believe emerging results of the earliest programs indicate that the concept has potential for preserving needed industrial base capabilities and improving the use of DOD depot-level maintenance facilities. However, Tobyhanna depot officials told us their attempts to get approval for various joint public-private depot projects have largely been unsuccessful because of various statutory constraints.

We found there were numerous impediments to implementation of various joint venture initiatives. For example, 10 U.S.C. 4543 provides nine conditions that must be present in order for certain Army industrial facilities to sell manufactured articles or services outside DOD, including the requirement that the services cannot be obtained from a private-sector source within the continental United States. Depot officials stated that it would be unusual for there not to be at least one private-sector provider for most depot activities. Also, 10 U.S.C. 2471 requires that when depot equipment and facilities are leased to a private-sector firm, reimbursements must be made to the U.S. Treasury as miscellaneous receipts rather than to the depot providing the facilities. This provision reduces the incentive for the services to enter into such arrangements. Unless these and other statutes are revised, dual use initiatives may have limited promise for significantly improving the utilization and decreasing excess capacity of Army depots.

Statutes Affect Efforts to Privatize Workloads

As we have previously reported,⁹ various statutory restrictions may affect the extent to which DOD depot-level workloads can be converted to private-sector performance, including 10 U.S.C. 2464, 10 U.S.C. 2466, and 10 U.S.C. 2469. Title 10 U.S.C. 2464 provides for a "core" logistics capability to be identified by the Secretary of Defense and maintained by DOD unless the Secretary waives DOD performance as not required for national defense.

Titles 10 U.S.C. 2466 and 10 U.S.C. 2469 affect the extent to which depot-level workloads can be converted to private-sector performance. Title 10 U.S.C. 2466 prohibits the use of more than 40 percent of the funds made available in a fiscal year for depot-level maintenance or repair for private sector performance: the so-called "60/40" rule. Title 10 U.S.C. 2469 provides that DOD-performed maintenance and repair workloads valued at not less than \$3 million cannot be changed to performance by another DOD activity without the use of "merit-based selection procedures for competitions" among all DOD depots and that such workloads cannot be changed to contractor performance without the use of "competitive procedures for competitions among private and public sector entities."

While each statute has some impact on the allocation of DOD's depot-level workload, 10 U.S.C. 2469 is the primary impediment to privatization without a public-private competition. The competition requirements of 10 U.S.C. 2469 have broad application to all changes to the depot-level workload valued at not less than \$3 million currently performed at DOD installations, including the Army depots at Red River and Letterkenny. The statute does not provide any exemptions from its competition requirements and, unlike most of the other laws governing depot maintenance, does not contain a waiver provision. Further, there is nothing in the Defense Base Closure and Realignment Act of 1990—the authority for the BRAC recommendations—that, in our view, would permit the implementation of a recommendation involving privatization outside the competition requirements of 10 U.S.C. 2469.

The determination of whether any single conversion to private-sector performance conforms to the requirements of 10 U.S.C. 2469 depends upon the facts applicable to the particular conversion. DOD has not yet finalized its privatization plans for either the Letterkenny or Red River depot nor, as of the date of this report, has DOD informed us how it plans to comply with the statutory restrictions in these proposed conversions. It is

⁹Depot Maintenance: Opportunities to Privatize Repair of Military Engines (GAO/NSIAD-96-33, Mar. 5, 1996) and Defense Depot Maintenance: Privatization and the Debate Over the Public-Private Mix (GAO/T-NSIAD-96-146, Apr. 16, 1996).

unclear whether the planned conversions will comply with the requirements of existing law.

Recommendations

We recommend that the Secretary of Defense direct the Secretary of the Army to take the following actions.

- Develop required capability in military depots to sustain core depot repair and maintenance capability for Army systems and conduct and adequately document a risk assessment for mission essential workloads being considered for privatization.
- Use competitive procedures, where applicable, to assure the cost-effectiveness of privatizing Army depot maintenance workloads.
- Evaluate the cost-effectiveness of consolidating all of the Letterkenny tactical missile workload at the Tobyhanna depot, including an assessment of the fixed cost savings impact on the workload currently maintained at Tobyhanna.
- Assess alternatives for reducing the costs of operating the Red River depot, given the extensive excess capacity that will remain at that facility after implementation of the 1995 BRAC recommendations.
- Complete cost analyses of the Army's proposed privatization initiatives, including the Paladin self-propelled artillery vehicle and wheeled vehicle and troop support equipment maintenance workloads from Red River. In comparing the cost and benefits of consolidating these workloads at other DOD depots with privatizing, the analyses should include the impact on recurring cost of existing workloads at the depots that would receive the workloads.

We recommend that the Secretary of Defense review the results of the Army's cost analysis for tactical missile maintenance to determine the most cost-effective course of action. If the consolidation option is determined to be the most cost-effective, the Secretary should reassess the Army's interpretation of the BRAC recommendation and (1) if the reassessment determines that the consolidation is consistent with the BRAC recommendation to consolidate the entire tactical missile workload, except for disassembly and storage at Tobyhanna, DOD should do so or (2) if the reassessment determines that such a transfer is not consistent with the BRAC recommendation, DOD should seek redirection from Congress to accomplish this action.

Agency Comments and Our Evaluation

In commenting orally on our draft report, DOD officials generally agreed with our findings and recommendations regarding the Army's plans to privatize depot maintenance. They stated that the Army's plans were tentative and contingent on congressional relief from requirements of title 10, most notably, the 60/40 rule and the requirement for public-private competitions before privatizing depot workloads that exceed \$3 million. They pointed out that the Army's plans are being revised because Congress did not repeal or modify these statutes. They said that in revising these plans, DOD and the Army intend to meet the requirements of existing statutes governing DOD's depot-level maintenance operations. They did not specify how the plans would meet the requirements.

DOD officials also noted that the BRAC 1995 recommendation regarding Letterkenny did not provide for the transfer of all the missile maintenance mission work to the Tobyhanna depot or the private sector—only the missile guidance work—which they estimate to represent about 14 percent of the missile maintenance workload. Officials stated that the combination of the BRAC 1993 recommendation to consolidate tactical missile maintenance at the Letterkenny depot with the BRAC 1995 recommendation to transfer or privatize only the missile guidance workload precludes the Army from consolidating all missile depot maintenance workload at Tobyhanna. Accordingly, they believe there is no need to evaluate the cost-effectiveness of an option that the Army cannot implement.

In our view, the BRAC recommendation is sufficiently imprecise to support a variety of interpretations to include the Army's proposal, as well as the consolidation of all tactical missile depot maintenance at Tobyhanna. Notwithstanding this point, there is nothing that precludes the Army from assessing the cost-effectiveness of the various alternatives, whether they are implemented or not. Consequently, we have modified the recommendation in our draft report and are now recommending that the Secretary of Defense direct the Secretary of the Army to make such a cost analysis. In addition, we are recommending that the Secretary of Defense review the Army's cost analysis to determine the most cost-effective course of action and if necessary seek redirection from Congress to implement the most cost-effective action.

Our review indicated that consolidation of the missile workload at Tobyhanna and elimination of depot maintenance activities at Letterkenny, with the exception of conventional ammunition storage and tactical missile disassembly and storage, would offer the Army a more cost-effective alternative than retaining the excess capacity at both

underutilized depots. The continuation of depot maintenance work at Letterkenny, whether as a government-owned and operated maintenance depot or as a privatized operation, is not likely to achieve the savings that could be achieved through the closure of facilities and the elimination of overhead at one activity. We also believe that given the potential opportunities to reduce infrastructure and maintenance costs by consolidating the missile workload at Tobyhanna, DOD should further evaluate this option before the Army proceeds with a less cost-effective option.

In other comments, DOD officials suggested that maximum potential capacity not be used to measure unused capacity at Army depots because it (1) is not equivalent to the current industrial capacity of a depot, (2) includes building space that lacks plant equipment, and (3) is useful only for determining if additional work can be accomplished in existing space with the transfer or purchase of equipment. They said that the use of maximum potential capacity inflates the excess problem at the depots. We believe that maximum potential capacity is an acceptable benchmark for measuring capacity utilization and cost impact of underutilized facilities. The services developed, certified, and submitted such data for use in the BRAC 1995 process. We believe this capacity measure is a conservative projection of excess capacity, since it is based on a 5-day, one 8-hour shift operation, while private sector industrial use is frequently 2 or 2-1/2 shifts. Further, other DOD measures of capacity are constrained by numbers of available personnel and provide little indication of potential capacity available through more cost-effective use of industrial facilities and equipment. Maximum potential capacity provides a reasonable basis for analyzing the potential capacity available for workload consolidation.

DOD officials also noted that the Paladin self-propelled artillery vehicle workload cannot continue at the Letterkenny depot in a government facility after the year 2001 because the 1995 BRAC Commission directed this mission be realigned to the Anniston depot. We recognize that the BRAC 1995 recommendation for Paladin depot maintenance workload was to move it to Anniston, but delaying transfer until the year 2001 could increase the cost of overall depot maintenance operations and decrease the savings expected to be derived from workload consolidation.

Based on other DOD oral comments, we made technical changes to the draft report for clarification of several points.

Scope and Methodology

In conducting our work, we obtained documents from and interviewed officials from the Office of the Secretary of Defense, Washington, D.C.; Army headquarters, Washington, D.C.; Army Materiel Command and Army Audit Agency, Alexandria, Virginia; Industrial Operations Command, Rock Island, Illinois; and Anniston, Letterkenny, Red River, and Tobyhanna Army Depots. While at these depots, we discussed programs that involved partnering and other joint ventures with depot officials and reviewed pertinent documentation on the planned use and the results of these programs. We did not evaluate the merits of these programs because they generally were small in number and relatively new. In addition, whenever possible, we relied on information previously gathered as part of our prior reviews of DOD's depot maintenance operations.

To evaluate the impact on excess capacity, we compared maximum potential capacity and programmed workload forecasts data, as certified to the Joint Cross Service Group for Depot Maintenance prior to the 1995 BRAC round. We determined current excess capacity percentages based on a comparison of maximum potential capacity and workload forecasts for fiscal year 1996. To assess the impact of planned workload reallocations, we compared maximum potential capacity to workload forecasts for fiscal year 1999, adjusting for (1) capacity that the Army plans to transfer to the Red River and Letterkenny depot communities, (2) planned reallocation of programmed workloads from the Letterkenny and Red River depots to the Anniston depot, and (3) planned privatization of Letterkenny and Red River workloads.

To determine the impact of workload reallocation plans on operating costs for combat vehicles maintenance, we reviewed an economic analysis that the Army Materiel Command had prepared and a draft audit report of the analysis that the Army Audit Agency had prepared. To determine the impact of workload reallocation plans on future operating rates for electronic type items, we asked officials at the Tobyhanna depot to compute operating costs based on their pre-BRAC workload forecasts and supplemented by possible transfers of 1.5 million direct labor hours of tactical missile workload from the Letterkenny depot and 1.2 million hours of ground communications and electronics workload from the Sacramento Air Logistics Center.

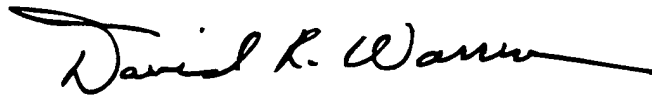
To determine the cost-effectiveness of the Army's planned privatization plans, we held discussions with responsible Army officials and reviewed available documentation from the Army Materiel Command and its Industrial Operations Command. We could not fully evaluate these plans

because the Army had not completed its analyses of all the privatization initiatives. Given that our analysis was constrained by the preliminary nature of some Army plans and the absence of some cost data, our analysis is based on assumptions that may change as better data become available.

For DOD compliance with statutory requirements, we identified the applicable requirements and determined their impact on DOD's plans to privatize depot-level maintenance workloads.

We conducted our review between February 1996 and July 1996 in accordance with generally accepted government auditing standards.

We are sending copies of this letter to the Secretaries of Defense, the Army, and the Air Force; the Director of the Office of Management and Budget; and interested congressional committees. Copies will be made available to others upon request. If you would like to discuss this matter further, please contact me at (202) 512-8412. Major contributors to this letter are listed in appendix I.



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